

REMARKS

Claims 1, 2, 11-15 and 29 stand rejected, claims 6-10, 16-28, 30 and 31 are withdrawn and claims 3-5 are objected to in the outstanding Official Action. Claim 3 has been cancelled without prejudice, claims 1, 4, 5 and 27-29 amended, and newly written claims 32-36 offered for consideration. Accordingly, claims 1, 2 and 4-36 remain in this application.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

The Examiner's indication of applicant's previous election of Group I, i.e. claims 1-5, 11-15 and 29, is appreciated. However, in sections 1 and 2 on page 2 of the outstanding Official Action, the Examiner incorrectly states that applicant made the election "without traverse." This is clearly incorrect, as applicant's "Response to Restriction Requirement" filed August 21, 2001 clearly states in the second paragraph "however, **applicant respectfully traverses the election requirement** and believes that they should all be examined together" (emphasis added). Accordingly, correction of the record with respect to applicant's traversal of the restriction requirement is respectfully requested.

The Examiner's acknowledgment of applicant's claim for foreign priority is very much appreciated. Applicant will submit a certified copy of the European application in due course.

The specification is objected to in that the Abstract includes legal language as noted. Applicant has amended the Abstract to remove this language, thereby obviating any further objection thereto.

In sections 7 and 8 of the outstanding Official Action, the Examiner indicates that claims 3-5 are objected to, but would be allowable if rewritten in independent form. The subject matter of claim 3 has been added to independent claim 1 and claim 3 cancelled without prejudice. The dependency of claims 4 and 5 has been amended to depend directly from claim 1. Accordingly, claims 1, 4 and 5 are believed to be in condition for allowance.

The subject matter of claim 3 has also been incorporated into independent claims 27-29, thereby rendering them patentable. Inasmuch as claims 2, 4-26, 30 and 31 all ultimately depend from claim 1, they are believed allowable. The Examiner's previous indication that claim 1 is generic is appreciated. Since all claims depend from claim 1 which is still believed generic and, because claim 1 as amended is believed allowable, all claims 2, 4-26, 30 and 31 are believed allowable. Should the Examiner still be of the opinion that these are separate species, applicant is entitled to consideration of these separate species in view of the allowed generic claim.

Claims 1, 2, 11-15 and 29 stand rejected as anticipated by Plesko (U.S. Patent 5,886,332). Inasmuch as the subject matter of claim 3 has been incorporated into claim 1, the rejection under §102 is clearly mooted.

Newly written claim 32 is also directed to the elected species in the same fashion that original claim 11 was directed to the elected species, i.e. that the focusing lens in the

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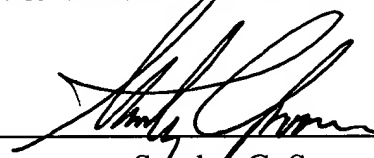
first means constitute "a single optical element." Thus, consideration of independent claim 32 and dependent claims 33-36 is appropriate. Claims 32-36 are in accordance with the elected Group I species.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that pending claims 1, 2, and 4-36 are in condition for allowance and notice to that effect is respectfully requested. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of the claims, he is respectfully requested to contact applicant's undersigned representative.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT

Abstract of the Disclosure

The invention relates to an optical device for focusing a laser beam, comprising a source of emission of a laser beam, for example a substantially elliptic and astigmatic laser beam, a focusing lens of the laser beam and first [means] aperture adapted to select a central portion of the laser beam. [Said] The first [means are] aperture is directly applied on the focusing lens, and [they] comprises a coating [means] made of a substantially opaque material which are applied (for example, by spraying, sputtering, evaporation, printing, painting) on a peripheral portion of a front surface of the focusing lens so as to allow the propagation of the central portion of the laser beam and obstruct the propagation of a surrounding portion of beam. The device of the invention is extremely simple from the constructive point of view, and is inexpensive and small-sized.

[(Fig. 1)]

IN THE CLAIMS

1. *(Twice Amended)* Optical device for focusing a laser beam, said device comprising:

- a focusing lens upon which the laser beam is directed;
- first means for selection only a central portion of the laser beam;

wherein said first means are directly applied on the focusing lens and defines on the focusing lens an aperture having a Fresnel number which is smaller than 2 along a fixed reading direction.

4. (Amended) Device according to claim [3] 1, wherein said aperture has a Fresnel number smaller than 1.2 along said reading direction.

5. (Amended) Device according to claim [3] 1, wherein said aperture has a Fresnel number smaller than 2 along an orthogonal direction with respect to said reading direction.

27. (Amended) Lens for focusing a laser beam, including a coating means made of a substantially opaque material, applied on a peripheral portion of a front surface of the lens so as to allow the propagation of a central portion of the laser beam, and obstruct the propagation of a surrounding portion of beam, wherein said coating means defines on the focusing lens an aperture having a Fresnel number which is smaller than 2 along a fixed reading direction.

28. (Amended) Optical element for focusing a laser beam, said element comprising a focusing lens and a diaphragm having a central aperture adapted to allow the propagation of a central portion of the laser beam, and a surrounding surface adapted to obstruct the propagation of a surrounding portion of beam, the lens and the diaphragm comprising opposed front surfaces, having conjugated shape, adapted to be reciprocally

coupled, wherein said diaphragm defines on the focusing lens an aperture having a Fresnel number which is smaller than 2 along a fixed reading direction.

29. Optical element for focusing a laser beam, said element comprising, in a central portion, a focusing lens adapted to allow the propagation of a central portion of the laser beam and, in a surrounding portion, means adapted to separate the central portion of the beam from a surrounding portion of beam, wherein said means defines on the focusing lens an aperture having a Fresnel number which is smaller than 2 along a fixed reading direction.

--32. (New) Optical device for focusing a laser beam, said device comprising a single optical element upon which the laser beam is directed, said single optical element comprising:

a focusing lens; and

first means disposed around an outer edge of the focusing lens, adapted to separate a central portion of the laser beam from a surrounding portion of the laser beam;

wherein the entire central portion of the laser beam collected by the lens is focused.

33. (New) Device according to claim 32, wherein said focusing lens is a diffracting lens made by a diffracting technology.

34. (*New*) Device according to claim 32, wherein said first means are made of a substantially opaque material, which is adapted to obstruct the propagation of the surrounding portion of the beam.

35. (*New*) Device according to claim 32, wherein said first means are made of a diffusing material, adapted to disperse the surrounding portion of the beam.

36. (*New*) Device according to claim 32, wherein the first means defines on the focusing lens an aperture having a Fresnel number which is smaller than 2 along a fixed reading direction. --

Abstract of the Disclosure

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The invention relates to an optical device for focusing a laser beam, comprising a source of emission of a laser beam, for example a substantially elliptic and astigmatic laser beam, a focusing lens of the laser beam and first aperture adapted to select a central portion of the laser beam. The first aperture is directly applied on the focusing lens, and comprises a coating made of a substantially opaque material which are applied (for example, by spraying, sputtering, evaporation, printing, painting) on a peripheral portion of a front surface of the focusing lens so as to allow the propagation of the central portion of the laser beam and obstruct the propagation of a surrounding portion of beam. The device of the invention is extremely simple from the constructive point of view, and is inexpensive and small-sized.
